GS – ER Combined Meeting

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Discussion

Rectal foreign body

Epidemiology

- Rectal foreign bodies have been reported in patients of all ages, genders, and ethnicities
- More than two-thirds of patients with rectal bodies are men in their 30s and 40s

Table 1
Rectal foreign body series

Author (Year)	Number of Patients	Male/ Female	Age (Mean or Median in y)	Insertion (Anal/ Ingestion)	Extraction (Transanal/ Abdominal)	Stoma (Number)	Morbidity/Mortality (Percentage)
Rodriguez (2007)[2]	30	20/10	42.5	16/14	23/7	6	14/0
Clarke (2005)[3]	13	13/0	45	13/0	8/5	2	NA
Lake (2004)[4]	87	85/5	40	87/0	79/8	2	1/0
Ruiz (2001)[10]	17	14/3	46.3	17/0	10/7	5	0/0
Biriukov (2000)[11]	112	111/1	16–80	112/0	107/6	NA	NA
Ooi (1998)[1]	30	25/5	46	30/0	27/3	1	7/0
Cohen (1996)[12]	48	45/3	33.6	48/0	42/6	5	0/0
Yaman (1993)[13]	29	28/1	42.5	22/7	27/2	2	17/0
Marti (1986)[14]	8	NA	38	8	NA	NA	0/0
Nehme Kingsley (1985)[15]	51	51/0	19–94	51/0	50/1	0	0/0
Barone (1983)[16]	101	101/0	16–48	101/0	89/12	11	NA/1
Cass (1981)[17]	29	26/3	10–84	29/0	15/14	10	14/3
Sohn (1977)[18]	11	11/0	35	11/0	7/4	4	10/0
Barone (1976)[19]	28	26/2	16–56	28/0	23/5	5	14

Classification

- The American Association for the Surgery of Trauma (AAST) rectal organ injury scale is generally used for blunt and penetrating trauma.
  - its use for injury secondary to rectal foreign bodies is appropriate
- Voluntary versus involuntary and sexual versus nonsexual

AAST rectal organ injury scale

Grade I	Hematoma: contusion or hematoma without devascularization and/ or partial-thickness laceration
Grade II	Laceration ≤ 50% circumference
Grade III	Laceration>50% circumference
Grade IV	Full-thickness laceration with extension into the perineum
Grade V	Devascularized segment

Despite the potential for severe injury, most rectal injuries from foreign bodies result in grade I or grade II injuries.

Table 3
Classification of rectal foreign bodies

	Voluntary	Involuntary
Sexual	Vibrators, dildos, varied other objects	Rape or assault (ie, the Abner Louima case where New York City Police Department assaulted/sodomized him with a broom stick in 1997).
Nonsexual	Body packing of illicit drugs	The mentally ill or children: retained thermometers; enema tips; oral ingestion, such as bones, toothpicks, plastic objects

The potential complications from body packing include impaction, obstruction, perforation, and even rupture of the packages resulting in systemic absorption of the drugs.

Evaluation - I

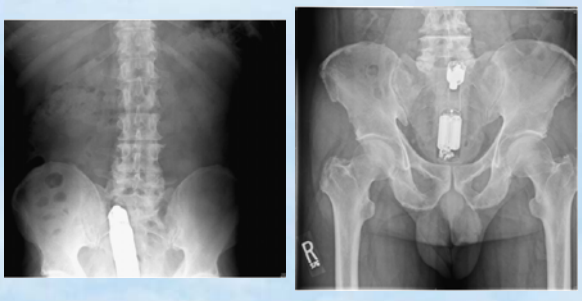
- Chief complaint: rectal pain or abdominal pain, bright red blood per rectum, inability to have a bowel movement, and rectal mucous leakage.
  - 不一定提到rectal foreign body
  - 也有可能自己取出後，delayed symptoms of bleeding, perforation, or even incontinence
- patients present several hours to days after the placement of the rectal foreign body

Evaluation - II

- valuable information
  - description of the object(s),
  - timing of event,
  - history of repetitive trauma from either placement or attempted removal

Evaluation - III

- Physical examination:
  - Peritonitis → perforation
  - the rectal foreign body can be palpated in either the left or right lower quadrant of the abdomen
  - rectal examination：blood, the status of the sphincter
    - In patients without sphincter injury, the rectal sphincter may have increased tone secondary to muscular spasm as a result of the foreign object



Management

- First step：to determine whether or not a perforation occurred
- To determine clinically stable or unstable
- In clinically stable patients without evidence of perforation or peritonitis, the rectal foreign body should be removed either in the emergency department or in the operating room

Extraction Techniques – Transanal approach

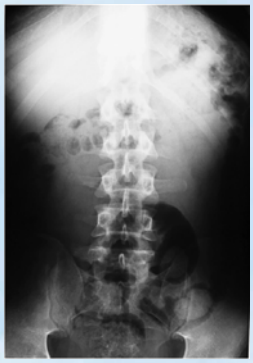
- the most important factor in successful extraction is patient relaxation
  - Perianal nerve block, a spinal anesthetic, or either of these in combination with intravenous conscious sedation
  - pudendal nerve block
- DRE →dilated to 3 finger's breadth
- Kocher clamp or ring forceps to take hold the object
- A rigid sigmoidoscopy is recommended, although some advocate a flexible sigmoidoscopy.

Extraction Techniques

- Some smooth foreign bodies create a seal with the rectal mucosa.
  - downward traction → a vacuum force is created that prevents the removal of the object
  - Placing a Foley catheter alongside the object and inflating the balloon above it helps in extraction in 2 ways

Body packers

- Clamps are not recommended



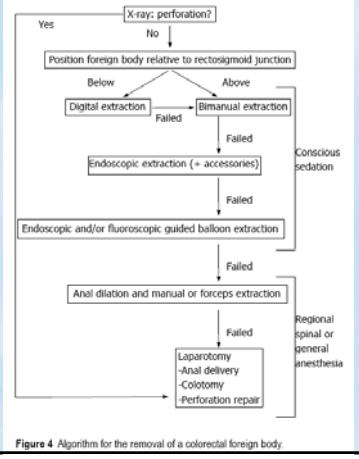


Figure 4 Algorithm for the removal of a colorectal foreign body

Thanks for your attention!